

Claims:

1. An isolated human Urb-ctf polynucleotide which codes without interruption for an amino acid sequence set forth in SEQ ID NO 2, or a complement thereto.

2. An isolated human Urb-ctf polynucleotide of claim 1, having the polynucleotide sequence set forth in SEQ ID NO 1, or a complement thereto.

3. An isolated human Urb-ctf polynucleotide comprising,
polynucleotide sequence having 97% or more nucleotide sequence identity to the
polynucleotide sequence set forth in SEQ ID NO 1, which codes without interruption for
Urb-ctf, and which has transcriptional regulatory activity.

4. An isolated polynucleotide of claim 3 having 99% or more sequence identity to the
polynucleotide sequence set forth in SEQ ID NO 1.

5. An isolated polynucleotide which is specific for human Urb-ctf and which codes for a
polypeptide, said polypeptide comprising.

amino acid 38 of SEQ ID NO 2,
amino acid 68 of SEQ ID NO 2,
amino acids 76-77 of SEQ ID NO 2,
amino acid 119 of SEQ ID NO 2,
amino acid 143-144 of SEQ ID NO 2,
amino acid 161 of SEQ ID NO 2,
amino acid 583 of SEQ ID NO 2,
amino acid 606 of SEQ ID NO 2, or
complements thereof.

6. An isolated polynucleotide of claim 5, comprising a polynucleotide coding for amino
acids 1-263 of SEQ ID NO 2 or 459-614 of SEQ ID NO 2, or a complement thereof.

7. An isolated polynucleotide of claim 5, wherein said polynucleotide is effective in a
polymerase chain reaction.

8. An isolated polynucleotide of claim 5, which codes for a polypeptide comprising at least eight amino acids in length.

9. An isolated human Urb-ctf polypeptide of claim 1 comprising,
5 the amino acid sequence set forth in SEQ ID NO 2.

10. An isolated human Urb-ctf polypeptide of claim 3 comprising,
an amino acid sequence having 99% or more sequence identity to the amino acid
sequence set forth in SEQ ID NO 2.

10 11. An isolated human Urb-ctf polypeptide of claim 10, which has transcriptional
regulatory activity.

12. An isolated human polypeptide which is specific for Urb-ctf of claim 8, said
15 polypeptide comprising:

amino acid 38 of SEQ ID NO 2,
amino acid 68 of SEQ ID NO 2,
amino acids 76-77 of SEQ ID NO 2,
amino acid 119 of SEQ ID NO 2,
20 amino acid 143-144 of SEQ ID NO 2,
amino acid 161 of SEQ ID NO 2,
amino acid 583 of SEQ ID NO 2, or
amino acid 606 of SEQ ID NO 2.

25 13. An isolated polypeptide of claim 12, comprising,
a polypeptide coding for amino acids 1-263 of SEQ ID NO 2 or 459-614 of SEQ
ID NO 2.

14. A method of treating breast cancer showing altered expression of human Urb-ctf of
30 claim 1, comprising:

administering to a subject in need thereof a therapeutic agent which is effective for
regulating expression of said Urb-ctf gene or polypeptide.

15. A method of claim 14, wherein said agent is an antisense which is effective to inhibit translation of the gene coding for human Urb-ctf.

5 16. A method of diagnosing human breast cancer disease associated with abnormal Urb-ctf expression , or determining a subject's susceptibility to such disease, comprising:

assessing the expression of human Urb-ctf of claim 1 in a tissue sample comprising breast cancer cells.

10 17. A method of claim 16, wherein assessing is:

measuring expression levels of said gene, determining the genomic structure of said gene, determining the mRNA structure of transcripts from said gene, or measuring the expression levels of polypeptide coded for by said gene.

15 18. A method of claim 16, wherein said assessing detecting is performed by:

Northern blot analysis, polymerase chain reaction (PCR), reverse transcriptase PCR, RACE PCR, or *in situ* hybridization, and

using a polynucleotide probe having a sequence selected from SEQ ID NO 1, a polynucleotide having 99% sequence identity or more to a sequence set forth in SEQ ID

20 NO 1, or complements thereto.

19. A method of assessing a therapeutic or preventative intervention in a human subject having breast cancer, comprising,

25 determining the expression levels of human Urb-ctf of claim 1 in a tissue sample comprising breast cancer cells, or cells derived from breast cancer.

20. A method for identifying an agent that modulates the expression of human Urb-ctf of claim 1 in cells, comprising,

30 contacting a cell population with a test agent under conditions effective for said test agent to modulate the expression of the gene coding for human Urb-ctf in cells, and

determining whether said test agent modulates said gene.

21. A method of claim 20, wherein said agent is an antisense polynucleotide to a target polynucleotide sequence selected from SEQ ID NO 1 and which is effective to inhibit translation of said gene.

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22. A method for identifying an agent that modulates the biological activity of human Urb-ctf of claim 8, comprising,

contacting human Urb-ctf polypeptide of claim 8 with a test agent under conditions effective for said test agent to modulate the biological activity of said polypeptide, and

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determining whether said test agent modulates said polypeptide.

23. A non-human, transgenic mammal whose genome comprises a recombinant polynucleotide coding for a human Urb-ctf of claim 1 operatively linked to an expression control sequence effective to express said gene in breast tissue.

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24. A non-human transgenic mammal of claim 22, wherein said expression control sequence is an inducible promoter.

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25. An antibody which is specific for human Urb-ctf of claim 1, which antibody is specific for an epitope comprising:

amino acid 38 of SEQ ID NO 2,

amino acid 68 of SEQ ID NO 2,

amino acids 76-77 of SEQ ID NO 2,

amino acid 119 of SEQ ID NO 2,

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amino acid 143-144 of SEQ ID NO 2,

amino acid 161 of SEQ ID NO 2,

amino acid 583 of SEQ ID NO 2, or

amino acid 606 of SEQ ID NO 2.

26. A method of advertising human Urb-ctf of claim 1 for sale, commercial use, or licensing, comprising,

displaying in a computer-readable medium a polynucleotide sequence set forth in
5 SEQ ID NO 1, or complements thereto, or a polypeptide sequence set forth in sequence in
SEQ ID NO 2.

27. A method of selecting a breast cancer marker from a database comprising
polynucleotide sequences, comprising

10 displaying, in a computer-readable medium, a polynucleotide sequence or polypeptide
sequence for human Urb-ctf of claim 1, or complements to the polynucleotides sequence,
wherein said displayed sequences have been retrieved from said database upon
selection by a user.

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